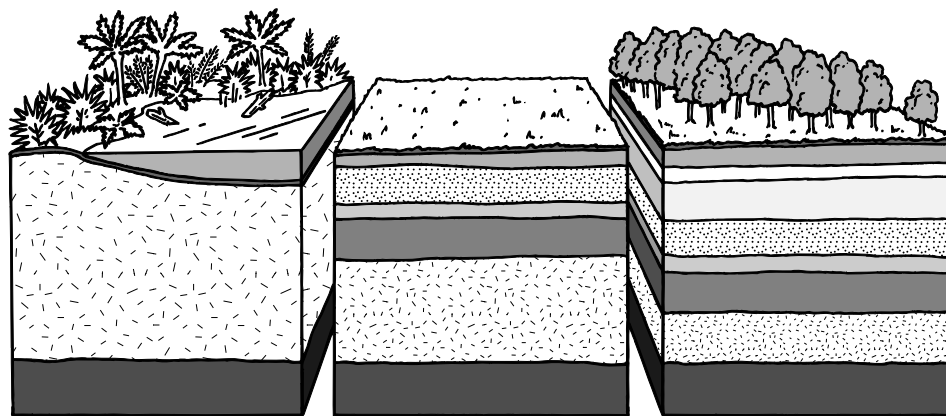


Rocks ▪ *Enrich*

The Formation of Coal

Coal is an organic sedimentary rock. One of its properties is that it burns. Coal provides energy for industries and for the production of electricity.

Much of the country's best coal is found in Pennsylvania, Ohio, West Virginia, Kentucky, Tennessee, and Alabama. The formation of this large coalfield began about 300 million years ago during a time geologists call the Carboniferous Period. During that period, vast tropical swamp forests covered much of North America. When these ancient trees died, they fell into the swamp water, which was low in oxygen. Instead of rotting—as they would in an oxygen-rich environment—the dead vegetation piled up. The sequence of pictures below tells the rest of the story of how this plant matter became coal.



Dead plant matter built up on the bottom of a vast swamp during the Carboniferous Period.

Layers of sediment were deposited. The weight of the sediment compacted the plant matter into a substance called peat.

More and more sediment was deposited on top of the peat. Over millions of years, the weight of overlying sediment compressed the peat into coal.

Answer the following questions on a separate sheet of paper.

1. What is coal?
2. When did the coal deposits of the eastern United States begin to form? What were environmental conditions like at that time?
3. What is peat?
4. What process caused the peat to become coal?
5. A type of coal called anthracite is classified by geologists as a metamorphic rock. It is much harder than sedimentary coal. Describe how you think anthracite forms.